

12 EUROPEAN PATENT APPLICATION

21 Application number: 82300813.1

22 Date of filing: 17.02.82

51 Int. Cl.³: G 02 B 5/14
 A 61 B 1/00, A 61 B 1/06
 C 03 B 37/14

30 Priority: 17.02.81 JP 22082/81
 20.01.82 JP 5907/82

43 Date of publication of application:
 25.08.82 Bulletin 82/34

88 Date of deferred publication of search report: 01.12.82

84 Designated Contracting States:
 AT BE CH DE IT LI NL SE

71 Applicant: Fuji Photo Optical Co., Ltd.
 1-324 Uetake-cho Omiya-shi
 Saitama-ken(JP)

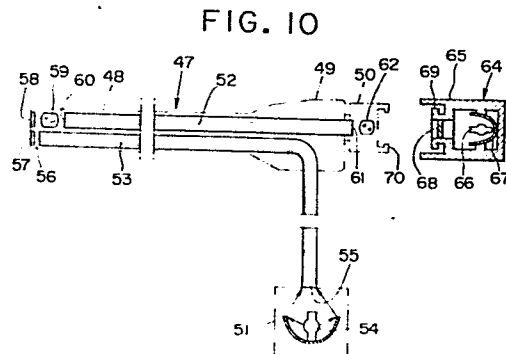
72 Inventor: Kojima, Takuo
 Fuji Photo Optical Co. Ltd. 1-324, Uetake-cho
 Omiya-shi Saitama-ken(JP)

72 Inventor: Ishibashi, Kuniaki
 Fuji Photo Optical Co. Ltd. 1-324 Uetake-cho
 Omiya-shi Saitama-ken(JP)

74 Representative: Ayers, Martyn Lewis Stanley et al,
 J.A. KEMP & CO. 14 South Square Gray's Inn
 London, WC1R 5EU(GB)

54 Method of and apparatus for restoring the light transmittance of an image transmitting optical fiber bundle used in a fiberoptic endoscope.

57 Exposure of a fiberoptic endoscope X-ray or γ -ray irradiation causes discoloration of fiber bundle with a reduction in light transmittance and makes observation or examination difficult. According to the invention the irradiation-induced reduction in light transmittance of the image transmitting fiber bundle 52 is eliminated by visible light radiation thereto through its end using a light source 64 attachable to the exit end of the endoscope. Visible light radiation having short wavelength causes the transmittance to recover to that before irradiation in a short period of time.





DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int. Cl. 3)
X	SOVIET JOURNAL OF QUANTUM ELECTRONICS, vol. 9, no. 5, May 1979, pages 636-637, New York, USA E.M. DIANOV et al.: "Reversible optical bleaching of the induced absorption in fiber-optic waveguides" * Abstract; page 636, left-hand column, lines 6-18 *	1,2,7,8	G 02 B 5/14 A 61 B 1/00 A 61 B 1/06 C 03 B 37/14
X	--- OPTICAL ENGINEERING, vol. 18, no. 6, November/December 1979, pages 552-561, Bellingham, USA E.J. FRIEBELE: "Optical fiber waveguides in radiation environments" * Page 556, right-hand column, lines 1-11 *	1,2-5,7	
A	--- SOVIET JOURNAL OF QUANTUM ELECTRONICS, vol. 9, no. 6, June 1979, pages 768-773, New York, USA A.N. GUR'YANOV et al.: "Radiation-optical stability of low-loss glass-fiber waveguides" * Figure 1; text directly beneath figure 1 *	1,7,8	TECHNICAL FIELDS SEARCHED (Int. Cl. 3) G 02 B 5/14 A 61 B 1/00 A 61 B 1/06 C 03 B 37/14 C 03 C 4/04 C 03 C 4/06 C 03 C 25/00
The present search report has been drawn up for all claims			
Place of search THE HAGUE		Date of completion of the search 16-08-1982	Examiner BEAVEN G.L.
CATEGORY OF CITED DOCUMENTS		T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons & : member of the same patent family, corresponding document	
X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document			



DOCUMENTS CONSIDERED TO BE RELEVANT				
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int. Cl. 3)	
A	ELECTRONICS LETTERS, vol. 15, no. 4, 15th February 1979, pages 111-112, Hitchin Herts, G.B. J.G. TITCHMARSH: "Signal-level dependence in the recovery rate of irradiated plastic-clad silica fibre" * Abstract; page 111, right-hand column, lines 1-19 *	1,8,10		
P,A	--- APPLIED OPTICS, vol. 20, no. 19, 1st October 1981, pages 3448-3452, New York, USA E.J. FRIEBELE et al.: "Photobleaching effects in optical fiber waveguides" * Abstract; page 3448, left-hand column, lines 1-19 *	1,8		
X	--- GB-A-1 041 903 (AMERICAN OPTICAL CO.) * Page 2, lines 10-32; figures 1,2 *	8,14		TECHNICAL FIELDS SEARCHED (Int. Cl. 3)
X	--- US-A-1 662 150 (C.H. KERR) * Page 1, line 68 - page 2, line 3; figure 1 *	8,13,14		
A	--- US-A-4 053 756 (N. TAKAHASHI) * Abstract; figures *	8,14		
The present search report has been drawn up for all claims				
Place of search THE HAGUE		Date of completion of the search 16-08-1982	Examiner BEAVEN G.L.	
CATEGORY OF CITED DOCUMENTS X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons & : member of the same patent family, corresponding document				



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0058574

Application number

EP 82 30 0813

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A	US-A-4 157 253 (K.G. HERNQVIST) * Abstract; column 1, line 46 - column 2, line 5; figures * -----	1	
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The present search report has been drawn up for all claims			
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